TAKING CARE OF THAT GARDEN OF MINE

Common Plant Diseases and How to Spray for Them—The Art of Garden Puttering—Some Garden Problems Solved.

EDITED BY E. L. D. SEYMOUR.

Editor's note: This department is maintained to interest and help those who enjoy growing things indoors and out. The editor will gladly receive criticisms and suggestions as to the sort of articles that will be most useful. He will also be glad to assist readers in solving their garden problems. Inquiries received up to Thursday noon will be answered, if possible, in the following Sunday's Tribune. If a personal reply is desired instead of, or as well as, an answer in these colums, there should be inclosed with the inquiry a stamped, addressed envelope.

THE last week has brought at least two days of the sort that hasten the development of plant diseases; I mean those warm, still, damp, muggy days, when one's ambition is at a low ebb, but when it is a good time to keep busy in the garden, nevertheless. We are therefore going to size up this disease problem and the means at hand for solving it, as we took up the insect pests last week.

THREE SORTS OF PLANT DISEASES

All plant diseases are of three kinds—fungous, bacterial and indeterminate, or, rather, of a nature that is not thoroughly understood nor as yet wholly describable.

These three types are illustrated by fire or pear blight, which attacks also apples, quinces, plums and some wild species, the soft rot of turnips and the deadly chestnut bark disease; the black rot of cabbage, cucumber wilt and bean blight, and the crown gall of the olive, raspberry, etc., respectively.

Now, as to the cure or prevention of plant diseases, as far as general principles go—the details in any particular case must, as I said above, be left until we find occasion to discuss that particular disease—the means at our disposal are, first, the destruction of the organism causing the disease by means of some spray, fumigation or other treatment; second, the production and growth of resistant varieties of plants; and, third, the practice of cultural methods, crop rotations, etc., that will either starve out the organism or destroy it in some quicker manner.

The club root disease, for instance, is caused by a so-called "slime mould" organism that lives in the soil for as much as seven years, even though no crop of cabbage, or allied crop, is raised thereon. However, heavy applications of lime seem to destroy it, so the combination of this precaution and a rotation, in which no two cabbage crops (or crops of the cabbage family) are grown on the same area within three years of each other, seems an effective method for keeping the disease in check.

REMOVING INFECTED TISSUE.

Any bacterial disease of plants must be treated exactly as we would treat any bacterial infection in our own bodies—whether a simple boil, or a deep-seated cancer. That is, every bit of infected tissue must be cut out with every antiseptic precaution, the remaining healthy tissue thoroughly cleaned and rendered aseptic, and the subject induced to make all possible healthy, new growth. This is exactly the course to be pursued in the case of pear blight; and in small vegetable crops the quickest and most effective proceeding is to destroy every diseased plant without compunction before an "epidemic starts."

Fortunately the fungous diseases are not only commonest, but also the easiest to control—provided conscientious and intelligent care is given. The treatment consists of spraying the affected plant with some fungicide, of which copper and sulphur are the most frequently used. In the greenhouse, for instance, an attack of wilt or blight can usually be stamped out simply by sprinkling about the fine "flowers of sulphur," or by painting the steam pipes with a sulphur paste which, under the action of the heat, gives off a mild sulphurous vapor.

Copper cannot, however, be used in any such simple state, so there has been devised what is probably the most effective and well known fungicide of the present day—Bordeaux mixture. The standard formula calls for

Copper sulphate (bluestone)	4 pounds
Quicklime	4 pounds
Water	50 gallons

and the process of making the mixture is as follows:

Slake the lime with enough water to make a smooth, creamy solution, then dilute this with, say, five gallons of water. Put the copper sulphate in a bag of coarse cloth and immerse it in some five gallons of water until dissolved. Then pour the two solutions *simultaneously* into a third *earthen* or *wooden* vessel, then add water to make fifty gallons, stirring thoroughly during the latter operation. While this is a simple enough process, it is not necessary that you should trouble yourself with it, since it is now possible to buy concentrated or "dry Bordeaux" already prepared and needing only dilution or mixing with water before using.

In the same manner it will rarely pay the small gardener to prepare his own lime-sulphur mixture, which is also an effective fungicide, as well as a spray for various scale insects, and especially suited for winter use, since ready prepared mixtures can be bought at any good seed store.

One spray mixture for fungous diseases, the third of this invaluable trio, can, however, be easily prepared by any one, and it is very likely to prove of great value later on in the season. This is an ammoniacal copper carbonate solution, which because of this almost colorless nature can be used on fruits even after they begin to ripen and take on their final color. To make fifty gallons of this mixture requires six ounces of copper carbonate and three pints of ammonia, besides the water. But for most amateur purposes eight quarts, made as follows, will suffice.

Place two level tablespoonfuls of the copper carbonate in a quart glass preserve jar. Pour over it about two ounces of ammonia, or enough to dissolve the crystals (the amount will vary according to the strength of the ammonia). Fill the jar with water, then allow the sediment (if any appears) to settle. Finally pour off the clear, light blue liquid, dilute it with seven quarts of water and the spray is made. It is really best to make small quantities of this material as it is needed, since it loses its strengh after standing.

One other material is used, especially on gooseberries, which does not discolor the fruit. This is potassium sulphide (liver of sulphur), which should be mixed with water at the rate of three ounces to ten gallons, the requisite amount being prepared whenever needed, since this, too, weakens upon standing.

Now, one more word of general advice in regard to the use of all these fungicides. When you spray use an outfit, however cheap and small it may be, that will produce a fine, dense mist, not a coarse stream or sprinkle of large drops. The idea is to cover every bit of the surface of every leaf and stem of every plant, so that no minute fragment of the parasitic fungus will find room to live and multiply.

It is conceivable that during the busy planting and transplanting season you somewhat neglected the "looks of the place." If so, now is the time to spruce up. Mowing the lawn isn't all there is to it, for the edges of the flower beds and paths need trimming, probably the path itself would be better for a weeding and raking; and, now that practically all the spring flowering shrubs have bloomed, it is a good time to trim up such of them as need attention. Finally, the hedge should be trimmed, beginning, around New York, within a week or two at the latest.

By cutting back, say, five inches of the new growth about now you both give a dressy, finished appearance to the hedge and prevent all the waste of energy mentioned above. Another result is that every twig you cut in the process seeds out at least two more, so that the entire growth is made denser, more attractive and, when necessary, more impregnable.

THE SUCCESS OF A "WILD GARDEN" DEPENDS UPON ITS BEING MADE TO LOOK AS THOUGH MAN HAD NEVER INTRUDED THERE. Photos Courtesy Doubleday Page & Co.

Does Anything Ail Your Garden?

This is the season for plant diseases to become established. Have your flowers and vegetables been attacked? Elsewhere on this page are discussed the main classes of such maladies, their causes and the general principles of their treatment. If you are in doubt, however, send a specimen of your diseased plant to the editor of this page and receive a prompt diagnosis and detailed suggestions as to its treatment. Address

The Garden Editor of The Tribune.

FIRST AID FOR THE ANXIOUS GARDENER

What is the best kind of tile to use in draining a garden? G. M. S.

Practically all agricultural drainage work is done with the common, red, unglazed brick tile, which comes in foot lengths, in diameters of two to ten or more inches and in round, hexagonal and horseshoe or U-shaped forms. For most conditions the round is the best, with the hexagonal second in popularity. For the average branch or lateral drain the two-inch size is sufficient unless the soil is extremely wet, in which case a three or four-inch line, or two parallel two-inch lines of pipe can be used.

I find on several of my peach and plum trees masses of gum or sticky jelly, but I cannot find any signs of insect or any other symptoms of disease. What is the cause and remedy, if any? G. I. E.

The gumming or "gumnosis" of stone fruit trees is a phenomenon about which but little has been discovered. Various explanations and treatments are given by different authorities, and each is likely to be contradicted by some one else. Perhaps the following advice from an English horticultural periodical will prove just what your case needs. At least the writer has the benefit of assurance and confidence in his recommendation:

"The primary cause of gumming in stone fruit trees is imperfect root action and lack of food. Without doubt, the roots have got down into poor soil, and are not running near the surface. A good gardener who finds his cherries gumming and knows the inevitable result, unless checked, will be death, also knows that the cause lies in the roots. He, therefore, opens a trench two feet wide and as deep round the tree, some three feet to four feet from the stem according to the size of the tree, cutting off very neatly all roots found, the grubbing under the ball and cutting all downward ones. Then he fills in the spaces thus made with some good yellow loam, with which is mixed some lime rubble or old plaster. When all is filled up he forks off the soil over the roots and replaces with fresh, finally giving the tree roots a mulch or top-dressing of half-decayed manure. Such treatment will steady and moderate the growth and the gumming will disappear."

My lawn is badly infested with ants that make ugly burrows and mounds all over its surface. How can I get rid of them? I. H. C.

Boiling water poured down the burrows is the simplest way, but it is not always wholly effective The best method is to enlarge the opening with a smooth round stick about as large as your finger, thrusting it about a foot into the ground in each hill or nest. Then pour into each opening three tablespoonfuls of bisulphide of carbon, which you can buy for a few cents at any drug store. Close up the hole immediately with a bit of earth, a piece of sod or a wad of wet rags. If any ants are in evidence after two or three days watch their movements and find out where their nests are and treat these in the same way. The carbon bisulphide is a heavy, colorless fluid that evaporates readily. It is entirely harmless to handle, but the fumes mixed with air form a highly explosive gas. Therefore, keep all cigars, cigarettes and fire of any knd entirely away from it.

As you suggested a week or so ago, I am sending herewith some leaves of the plants that are not doing well, but which you do not think the worms are injuring. Can you tell what is the matter with them and what to do?

MRS. J. S.

All three specimens seem to indicate the presence of one of the wilt fungous diseases as described above. Buy a little Bordeaux mixture, use it according to directions given on the package, and I think your plants will recover.

News and Views of the Private Schools

Edited by L. E. TUCKER

COMMENCEMENT AT ALL HALLOWS

Mgr. Mooney and Bourke Cochran Pay Tribute to the Irish Christian Brothers in New York.

More than five hundred enthusiastic parents and friends recently attended the commencement exercises at the Waldorf-Astoria of All Hallows Institute.

The annual prize speaking contest, in which ten students participated and which was won by George C. Shannon, was a feature of the exercises. The graduates were Edward A. Blake, Harold J. Cone, James C. Hawkins, Roswell Hawkins, Richard E. Keogh, John J. Kinney, Herbert J. Ryan and George C. Shannon.

Gold medals were awarded as follows: Christian doctrine, E. A. Blake; senior debate, H. J. Cone; junior debate, Francis Slayne; excellence, fourth year, academic, G. C. Shannon; excellence, third year, Percival Cowan; athletics, John J. Kinney; excellence (pre-academic), F. Meehan; Jerome Reilly and John Cosgrove.

In the speaking contest the following selections were delivered:

"Ireland and America," James Hooks; "Custer's Last Charge," T. Jefferson Vail, jr.; "Death of Charles IX," James M. O'Brien; "The Exile's Return," Greenville T. Keogh; "The Moor's Revenge," Edward A. Blake; "Decoration Day," James B. O'Reilly; "The Last Days of Herculaneum," Walter J. McBride; "Lafayette," Harold J. Cone; "Gerald Griffin," Francis Slayne; "Emmet's Vindication," George C. Shannon.

The school orchestra rendered some choice selections and there were violin solos by William McCarthy and James Mulvey. The choral class sang with taste and feeling "Home, Sweet Home" and "Sweet The Angelus Is Ringing."

The Rev. Brother Doorley, the principal of All Hallows, when introducing the Right Rev. Monsignor Mooney, who presided, spoke of the progress of the school since its foundation, five years ago. During these years the number of pupils had increased from twenty-five to 140. Much of the success that had attended the school was due, he said, to the wholehearted support and encouragement of the zealous pastor, the Rev. James W. Powers.

Monsignor Mooney, who awarded the diplomas and presented the medals, said: "That was a very fortunate day on which the New York teaching body received the accesssion of the Christian Brothers of Ireland. Certainly, what you have witnessed in this evening's commencement exercises would convince you that as teachers they have, as the saying is among us, 'made good.' The manner in which these young men acquitted themselves and every feature of the programme show instruction thorough and farreaching."

Bourke Cockran, who was introduced by Monsignor Mooney, said in part:

"As you came through the park you must have noticed the trees with their beautiful leaves. Nature in its present condition is typical of the circumstances under which you find yourselves here this evening. Nature is now beautiful, but it is yet in its initial stage. There are as many leaves on the trees now as there ever will be, but they have not yet matured—they have not yet reached their full development. You, too, possess all the qualities and characteristics you will ever possess, but they are not fully developed. Each one of you has different traits of character and peculiarities which fit you for a certain position, but I may be safe in assuming that you are all alike in desiring success. No doubt you would be very glad if you could meet a person who could tell each and every one of you how to become successful. You would bear with him for a little while.

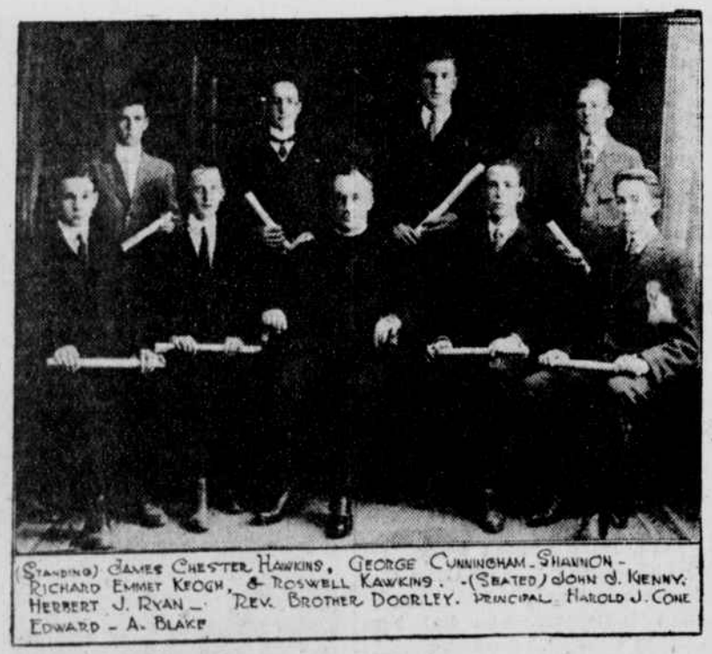
"You are familiar from your school work with the customs of chivalry. In those days when a young man was about to be admitted to knighthood he spent the preceding day and night in what was termed his vigil of arms. He had to remain beside the armor which was next day to be fitted to his body. The legends tell us of various artifices which were contrived to induce the young man to desert his place. At one time it would be a cry of distress, that strong appeal which every true knight was supposed to answer. If he left his place in response to this call, it showed he was enthusiastic but not loyal; if he deserted it from a baser motive, he was declared a recreant and was rejected. If, however, he kept his vigil the following day the golden spurs were put upon his heels, his armor was placed around him, his sword was girded on him, and he was declared a knight fit to do battle for his king and our lady, the champion of purity and staunch defender of female honor.

"Don't be discouraged if success does not come at once and if your work seems beneath your ability. Sometimes you may be dissatisfied and uncomfortable and vexed with your job, but that job is best for you. You are then keeping your 'vigil of arms.'

"The true key to success is love of your work. It is not money but the making of money, not the result but the actual work which is success. Money itself is merely the monument of success, not the real joy of life. Riches do not bring happiness, but love of your work does.

"If you follow out the example of Gerald Griffin, so well referred to by one of your companions this evening, you can be absolutely certain of success. To accomplish his aim Gerald had to spend his time and energy in the endeavor to make good.

"Don't mind delays before being recognized. Eager eyes will seek you out, if there be merit in you. If there be merit in you you cannot conceal it. No matter to what kind of fruitful labor or to what profession you devote yourself. Your merit is the measure of your success. The result of a life spent in upright and zealous labor will be that you will be an honor to your faith and to your God, in whose bosom you shall eternally dwell!"



(Standing) James Chester Hawkins, George Cunningham Shannon - Richard Emmet Keogh, & Roswell Kawkins. -(Seated) John J. Kenny, Herbert J. Ryan - Rev. Brother Doorley, Principal. Harold J. Cone Edward - A. Blake

COMMENCEMENT AT BERKELEY SCHOOL

The annual commencement exercises at the Berkeley Lyceum were largely attended. Miss S. H. Bingham, instructor of elocution, had charge of the programme, which consisted of the well chosen selection of recitations and playlets.

William H. Brown, president of the corporation of the school, made announcement of the retirement of the head master, Joseph Curtis Sloane, a retirement due to the continued ill health of Mr. Sloane's wife. In a few well chosen words Mr. Brown reviewed the work of Mr. Sloane at the Berkeley School during the last few years. Mr. Sloane succeeded the late Dr. Edwin M. Fowler as head master of the Berkeley School in 1910. He will himself be succeeded by Professor Maurice S. H. Unger, for the last thirteen years head master of St. John's School at Manlius. Professor Unger will assume charge of the Berkeley School next fall.

J. Clarke Read, associate head master of the school, who has been connected with the school for thirty-four years, retires from Berkeley this year to enter business. Dr. Fred O. Virgin, on behalf of the Alumni Association, presented to Mr. Read a handsome loving cup.

Addresses were made by Mr. Brown, Mr. Sloane, Mr. Unger and Mr. Read. Diplomas were presented to the members of the graduating class by the president and honors were announced by the head master.

Among those present were Mr. and Mrs. William Hinshaw, Mr. and Mrs. Glenn H. Condon, Mr. and Mrs. H. C. Smythe, Dr. and Mrs. R. Johnson Held, Mr. and Mrs. M. S. H. Unger, Mr. and Mrs. Frederick D. Peltier, Mr. and Mrs. J. Clarke Read, Miss Read, Mr. and Mrs. William H. Brown, Mr. Frank W. Halman and M. Frank Gulden.

Camp Champlain

SUMMER CAMPS MORE POPULAR

The old idea that education should be given to children only during the winter months has been superseded by the modern idea that education is an all-the-year-round preparation for life. This means that many of the best private schools have come to supplement the academic study of the winter by a special out-of-door supervised play during the summer months. More and more popular has this camp idea become, so that each year sees a constant increase in both number and size of these educational camps.

Where is the boy who does not love the freedom and the grandeur of the great outdoor country? Is not the fondest dream of the average boy to live in a tent on the shore of some picturesque lake where Indians formerly fished and swam? The boy's imagination thrills his blood and makes him feel that the Indians still roam through the woods. The lure of the camp and of the wood captures his fancy, and deep down in his heart he yearns to live like the Indians in the land of his dreams.

Nor is the girl a whit behind the boy in her desire to live out of doors among the beauties of nature.

CAMP RIVERDALE IN THE ADIRONDACKS.

In the heart of the Adirondacks, Camp Riverdale is joyously entering upon its third year.

The camp settlement consists of a bungalow, with living rooms, dining room, kitchen and bedrooms used in unusual weather or illness. The boys and counsellors, however, sleep in tents on platforms, or in open camps. The beds and bedding are of the best.

Instruction is given under the direction of the headmaster of Riverdale Country School. Those boys for whom tutoring is planned will be taught individually, except where those of similar ability and attainment can be fairly grouped. Hours for study are under supervision, and every device is employed to develop proper habits of mind. The work embraces school subjects and college entrance examinations.

Parents and boys unfamiliar with the principles and the methods of the Boy Scouts of America will be given full data. This is one of the most important movements ever formed to inspire and to maintain qualities of nobility. Camp Riverdale affords opportunity to become part of this world organization and to achieve the successive grades and awards under the most favorable circumstances. Those who win honors for scouting, for tennis or water sports receive trophies. To the most faithful boy is presented a silver cup, and his name is inscribed on the camp scroll.

CAMP CHAMPLAIN.

About nine miles north of Burlington, Vt., among the pines on the shores of Mallett's Bay, is located Camp Champlain, an ideal camp for boys. The object of this camp is to give the boys the happiest, most instructive and most healthful summer possible; to develop them mentally, morally and physically; to teach them self-reliance, generosity, and respect for the rights of others. This camp belongs to the Berkeley School, 72d st. and West End av., New York City.

Eighteenth Commencement at Adelphi College

The eighteenth annual commencement of Adelphi College took place at the Brooklyn Academy of Music last week. The Rev. Dr. Charles Carroll Albertson addressed the graduates on "The Mission of the Scholar." Forty-eight girls received the junior college certificate, thirty-five girls were awarded the diplomas of the Normal School for kindergartners and art teachers, and forty-three girls received degrees as Bachelor of Arts.

The following members of the graduating class were awarded honors for the attainment of highest excellence in the work of any department during the senior college course:

Priscilla Bexter and Helen Handrich in the department of history, Alva Becker and Elizabeth Leuteritz in the department of history of art, Alva Becker, Elizabeth Kinkel and Anna Knapp in the department of philosophy, and Mildred Sagendorf in the department of sociology.

The College of New Rochelle will open its summer school on July 6. An unusually large number of students is expected to be present.

MISS MASON'S WORK AT "THE CASTLE"

At this, the wearisome end of the school year, when even the most enthusiastic of educators are privileged to seek freedom from educational cares, it is, indeed, encouraging and refreshing to meet the head of a large school who is positively bubbling over with enthusiasm for next winter's plans. To see Miss Mason, at this season of the year, in this mood is to cease to wonder why her school is such a great all-round success. "I believe," said Miss Mason, "that any person engaged in educational work must have self-improvement as a basis for the professional improvement of any institution to which she is attached. Therefore, I am planning to spend part of my summer in freshening up my knowledge of languages." Of course, it is well known that Miss Mason is quite an accomplished linguist.

Miss Mason then proceeded to describe another of her self-set tasks for the summer. That is, she described how she helps her girls to culture by means of their surroundings. She told how she is replanning some of her girls' bedrooms in such a way as to make each girl's room a lesson to her. The aim of Miss Mason's work in this direction is to have each room so planned as to minister to some pose of nature. The special bedroom which Miss Mason is now engaged in planning as a sort of type room to serve as a guide for the decoration of the other rooms is a room facing the north.

This room has been planned in soft tones of warm gray with relief of orange in a sort of burnt woodsy tone. The room is a Gothic one and a great window looks right out on to a thick forest. The draperies are of gray and orange to harmonize with the walls. The furniture is of dull, old oak, and is adapted to the shape of the room. The bed is of metal, with both headboard and footboard covered with old style draperies which harmonize with the rest of the room.

Miss Mason has so planned this beautiful, peaceful, restful room that no great amount of expense will be required in its outfitting. That means that no student at the school will be possessed of too slender an income to be able to afford to duplicate that room in her own home. At the same time the room arrangement readily lends itself to more luxurious plans.

"Another point which I seek to emphasize," continued Miss Mason, "is the cultivation of taste in dress. I do this by a process of setting up in each girl's mind an ideal of what good taste requires her to wear upon all kinds of dress occasions. My dress regulations prescribe definitely what kind of a dress is to be worn on all occasions, and simplicity is the keynote of each costume. If any dress which violates the principles of simplicity is brought to school by any student that dress is at once sent home."

A glance over the dress regulations showed many attractive costumes. The regulation study dress, the everyday dress of the school, is a blue serge uniform, neatly fitting and made by the naval tailors. The price of this uniform is only $5 for the older girls and less for the younger ones. At the military drill on the annual May Day festival this blue uniform is replaced by a white one made in exactly the same way. In the warm weather the uniform is a duplicate of the winter one, but it is made of navy blue linen.

The simple, neat athletic suit costs less than $5. A blue wool dress for street and church costs from $20 to $35, according to the quality of the cloth. The evening or party dress, is a white crepe de chine costing from $16 to $19.

Each year these types of gowns, which serve as models for the gowns of the pupils, are carefully revised by Miss Mason herself and changed in accordance with the styles. Thus each girl is taught to dress simply, appropriately and well as a part of her school training at The Castle.

QUAKER COLLEGE HONORS MUSIC

The Quaker College at Haverford has just shown its appreciation of music and of opera by conferring upon David Bispham the degree of Doctor of Laws. This is the first case on record of such appreciation of music by Haverford.

HOW THE TARIFF WORKS.

From Fibre and Fabric.

We are going to export over 9,000,000 bales of cotton this year and a generous share of it is going abroad to be made into cloth and sent back here to undersell our own mills. No wonder that foreign cotton manufacturers are laughing at our way of doing things. We give them cotton at the same prices we charge for it here and then we lower our tariff so that they can use this cotton to come back in cloth and be sold below the profit basis here.

Private school announcements will be found in Part IV.